

HAMMARBY SJÖSTAD

THE BEST ENVIRONMENTAL SOLUTIONS IN STOCKHOLM





DECONTAMINATION AND CLEARANCE. The Sjöstad area previously housed craftsmen's workshops and small industries, which left behind a great deal of pollution. The City of Stockholm's Environment and Health Administration has thoroughly cleared and decontaminated the area to meet the requirements for not posing a health and environmental threat.



CONSTRUCTION MATERIALS. Environmental considerations apply to all materials used, both the visible materials in the façades and on the ground as well as the materials used inside – the building's shell, the installations and the equipment. Only sustainable, tried and tested, eco-friendly products are used.



NON-DOMESTIC STORM streets, or non-domestic storm sand filter and then released instead of draining into the sewer pressure on the waste water tre



GLASHUSETT. Sjöstadens environmental information centre disseminates knowledge via study trips, exhibitions and demonstrations of new environmental technology, including fuel cells and the building's double-glazed façade. GlashusEtt often plays host, for example, to overseas visitors as part of its cooperation with the City of Stockholm's "Technical visits" projects.

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Hammarby Sjöstad is an exciting new district on the waterfront in the centre of Stockholm. The district will offer 9,500 apartments for some 22,000 residents.

From day one, the City has imposed tough environmental requirements on buildings, infrastructural solutions and the traffic environment. Integrated planning, innovative solutions and new technologies have been necessary to attain these goals.



SOLAR PANELS. There are solar panels to absorb the heat from the sun. The solar panels in the photo can provide half of the building's annual hot water.



VACUUM SYSTEM FOR SOLID WASTE AND REFUSE SORTING. Larger items of refuse are removed by vacuum suction from the waste disposal units through underground pipes to a huge central refuse deposit. Garbage trucks then pick up the containers with their different contents, reducing car-borne transports and benefiting the environment.



GREEN ROOFS. Roofs covered in stonecrop or sedum plants are not just an attractive detail. The plants also absorb rain water that would otherwise drain into the sewers, adding to the pressure on the waste water treatment plant.



ECODUCTS. Two wide bridges over the road have been covered with vegetation and a short-cut between Hammarby Sjöstad and the city reserve, as well as services in N



RAIN WATER. The rain water from the surrounding area is collected, purified in a series of basins, known as an equaliser, and then out into the lake, causing further pressure on the waste water treatment plant.



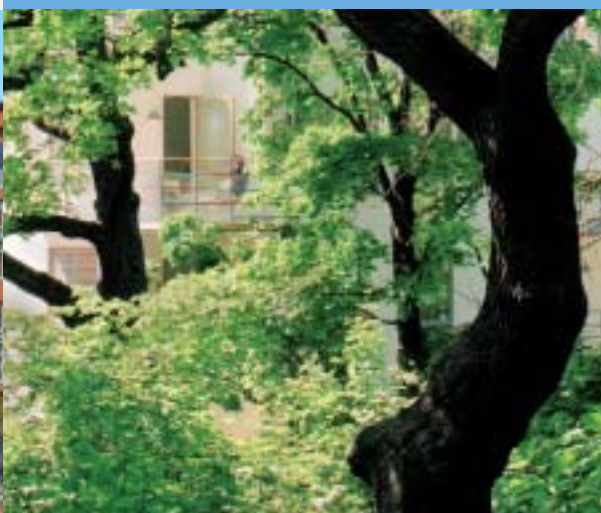
SOLAR CELLS. The light energy of the sun is harnessed and transformed into electrical energy in solar cells. The energy from a single solar cell module covering one square metre provides around 100 kWh/year, which is equivalent to the household energy used for three square metres of housing.



STORM WATER DRAINAGE. The rain water from surrounding houses and gardens is led via open drains to the attractive channel. The water runs into a series of basins, known as an equaliser, and then out into the lake. By disposing of as much storm water as possible locally, the pressure on the waste water treatment plant is decreased.



Solar panels on many of the roofs collect the sun's energy and use it to heat hot water. The energy provides sufficient energy to meet the household's water requirements.



VEGETATION. The main footpath, the carefully preserved oak forest, the green surfaces and all the other trees that have been planted help to collect rain water locally instead of it draining into the sewage system and putting extra pressure on the waste water treatment plant. The vegetation also ensures cleaner air and provides a counterbalance to the dense urban landscape.



SJÖSTADSVÄRKET. Hammarby Sjöstad has its own waste water treatment plant that was built to test new technology. Four different and brand new processes for purifying waste water are currently being assessed here. Once the evaluation is completed, a new waste water treatment plant may be constructed for coping with waste water from the whole of Hammarby Sjöstad.



Over the busy Södra Länken, the vegetation and provide both a link between Hammarby Sjöstad and the nature park.

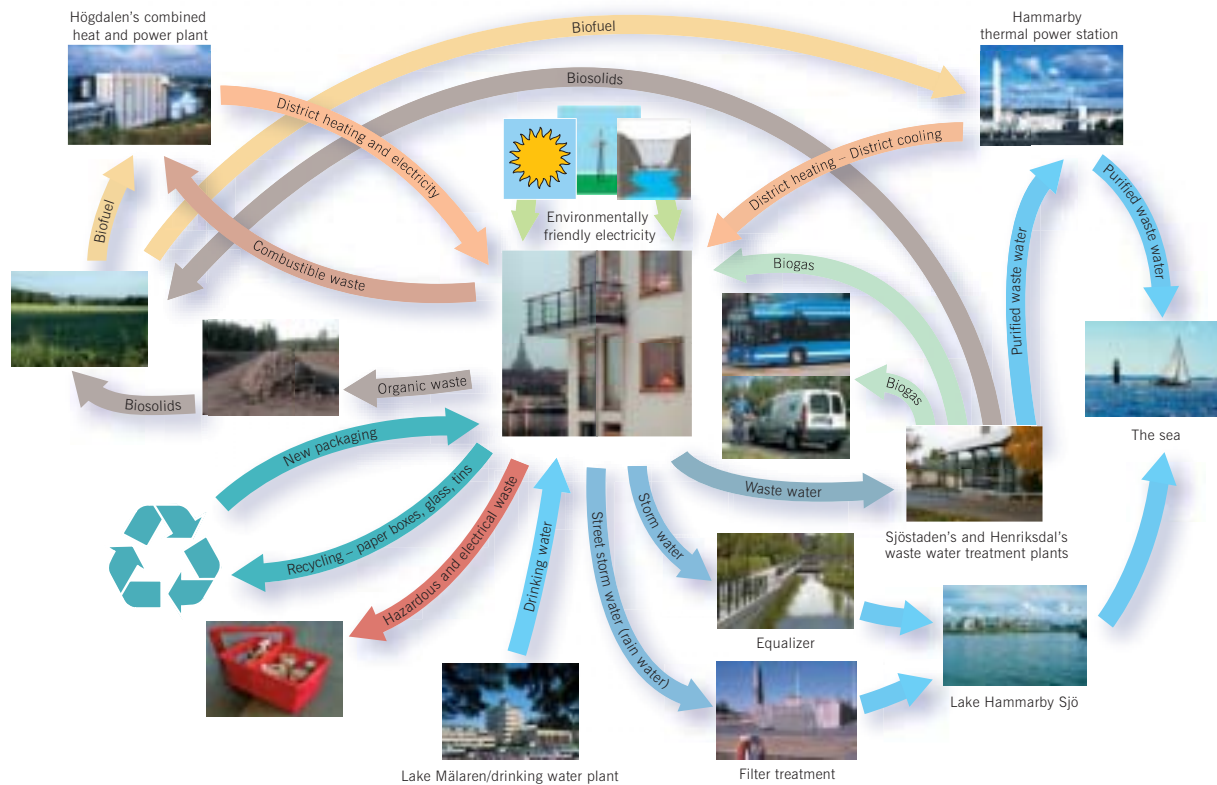


COMMUNICATIONS. In densely populated urban areas, transport leads to a major environmental impact. Hammarby Sjöstad offers attractive, energy-saving alternatives to private cars, such as the new tram or "Tvärbana", busses, ferry traffic, car pools and beautiful footpaths and cycle paths.



BIOGAS. Biogas is produced in the waste water treatment plant from the digestion of organic waste sludge. The waste water from a single household produces sufficient biogas for the household's gas cooker. Most of the biogas is currently used as fuel in eco-friendly cars and busses.

THE HAMMARBY MODEL



The core of the environmental and infrastructural planning jointly developed by Stockholm Water Company, Fortum and the City of Stockholm Waste Management Administration can be summarised in an eco-cycle model known as the Hammarby Model.

This model shows how sewage processing and energy provision interact, how refuse is handled, and the added value society gains from modern sewage and waste processing systems.

The overall goal "twice as good as the norm" required new ideas for energy, water, waste, transport, building design, construction site logistics – all those systems that we take for granted in a modern city.

GlashusEtt

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